UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,825	10/13/2003	Joseph Harry McCain	32848	5265

27683 7590 10/18/2006

HAYNES AND BOONE, LLP
901 MAIN STREET, SUITE 3100
DALLAS, TX 75202

EXAMINER	
MITCHELL, JAMES M	
ART UNIT	PAPER NUMBER
2813	

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

## *Office Action Summary*	**Application No.** 10/685,825	**Applicant(s)** MCCAIN, JOSEPH HARRY
	Examiner James M. Mitchell	**Art Unit** 2813

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *29 and 31-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *29 and 31-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to applicant's after final amendment filed October 6, 2006. Based on applicant's amendment of a dependent claim into the independent claim and argument were found persuasive. As such, the finality of the last office action is withdrawn.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 29, 31-33 and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Queysaac et al. (U.S. 5,089,877) in combination with Uedaira et al. (U.S. 4,585,718).

4. Queysaac (e.g. Fig. 7-9) discloses[1]:

(cl. 29) an integrated circuit package, comprising: a lead frame assembly including a central support member (52) and a plurality of conductive leads (18), wherein the central support member has opposing first and second major surfaces (e.g. top and bottom), and wherein the plurality of conductive leads are radially disposed about the periphery of the central support member (Fig. 7); an integrated circuit die (12) coupled to the first surface of the central support member and having a plurality of bond pads (e.g. portion of chip contacted with wire, 34); a power cell (32) coupled to the second surface of the central support member , an electrode including a planar body (28A) and a terminal (28) extending from the body, wherein the body is coupled to the power cell opposite the central support member (Fig. 8); a plurality of first wire bonds (34) each coupling one of the plurality of bond pads and one of the plurality of conductive leads; and a second wire bond having a first terminus coupled to one of the plurality of bond pads and a second terminus coupled to the terminal (28) of the electrode (Fig. 9), wherein the terminal has an arcuate shape (e. bow like) to configured to position the second terminus of the second wire bond in a reference plane that is coincident with the first surface of the central support member (e.g. along same plane, similar to applicant's Fig. 5);

---

[1] Alternatively, prior art like Hundt et al (U.S. 5,451,715), which already show a wire, connected to a terminus that is coincident could have been used as a primary reference, since the rearrangement of known parts has been held obvious. See M.P.E.P 2144.04.

(cl. 31, 36, 37) with a frame/ insulating layer (54) encapsulating/ substantially covering the surfaces of the body and the terminal that are opposite the power cell, die, and cell, electrodes and wires collectively;

(cl. 33) and the body and terminal each comprises at leas one copper and nickel (Col.6, Lines 60-64);

(cl. 38) with a frame (20) adjacent and extending along the perimeter of each cathode, anode and cell (Fig. 7), wherein the frame is open at opposing end (e.g. top & bottom surface) the first end exposing the anode and second end (e.g. bottom exposing cathode;

5. Queysaac does not appear to disclose that its cell is a lithium perchlorate that comprises a Manganese Dioxide cathode layer, a Lithium anode layer and a Lithium Perclorate separator layer interposing the cathode and anode layers, wherein the cathode layer is doped with a first impurity type and the anode layer is doped with a second, opposite impurity type, or wherein the first and second impurity types are selected from an n-type impurity and a p-type impurity.

6. However, Uedaira (abstract) utilizes a lithium perchlorate cell comprising a manganese dioxide cathode layer (6; Abstract), a lithium anode layer (1; Abstract), and a lithium perchlorate separator layer (4; Col. 6, Lines 1-3) interposing the cathode and anode layers, wherein the cathode layer.

7. It would have been obvious to one of ordinary skill in the art to modify the battery of Queysaac to include the features taught in Uedaira in order to provide high energy, back-up power source as taught by Uedaira (Col. 1, Lines 16-19 & 57-59).

8. With respect to the selection of encapsulating/insulating and doping type and concentrations of the anode and cathode in claim 29 and 32, the claim selection would have been obvious[2] to no of ordinary skill in the art, since it has been held that "[t]he selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in Sinclair & Carroll Co. v. Interchemical Corp., 325 U.S. 327, 65 USPQ 297 (1945) (Claims to a printing ink comprising a solvent having the vapor pressure characteristics of butyl carbitol so that the ink would not dry at room temperature but would dry quickly upon heating were held invalid over a

reference teaching a printing ink made with a different solvent that was nonvolatile at room temperature but highly volatile when heated in view of an article which taught the desired boiling point and vapor pressure characteristics of a solvent for printing inks and a catalog teaching the boiling point and vapor pressure characteristics of butyl carbitol. "Reading a list and selecting a known compound to meet known requirements is no more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle." 325 U.S. at 335, 65 USPQ at 301.). See M.P.E.P 2144.07.

9. Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Queysaac et al. (U.S. 5,089,877) and Uedaira et al. (U.S. 4,585,718) as applied to claim 29 and 39 and further in combination with Notten et al. (U.S. 6,346,343).

10. Neither Queysaac nor Uedaira appear to show an electrode coupled to the power cell covered with an electrical conduction enhancing, graphite, but Notten utilizes graphite over an electrode.

11. It would have been obvious to one of ordinary skill in the art to one of ordinary skill in the art to incorporate forming graphite on the electrode of a power cell of the modified structure including Queysaac in order to slow decay in voltage as taught by Notten (Col.6, Lines 47-49) thereby enhancing electrical conduction.

Response to Arguments

---

[2] Applicant's specification at Par .0023 states that his invention is "not limited to any particular doping scheme".

12. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M. Mitchell whose telephone number is (571) 272-1931. The examiner can normally be reached on M-F 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead Jr. can be reached on (571) 272-1702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jmm, J.D
October 12, 2006

Carl Whitehead
CARL WHITEHEAD, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800